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AMEE conference Glasgow 2010

Title: Promoting Long Term Knowledge Retention by use of KeePad Audience Response Systems
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Submitted for both eLearning symposia & main event

Background: Knowledge retention following didactic teaching decays at an undesirable rate. The use of audience response systems (ARSs) has been suggested to improve and facilitate learning in a lecture by increasing student participation, giving feedback, and improving knowledge retention.

Summary of work: 102 medical students attended lectures incorporating the use of the ARS KEEpad. KEEpad was used to ask the students an MCQ before the lecture; at the end of the lecture; and 1 & 4 weeks later. Evaluation forms (Likert scale) completed by students included the following statements; *The KEEpad audience response system; gives me feedback on my progress, aids my knowledge recall and consolidates my knowledge.*

Summary of results: On first exposure to the question $46 \pm 16\%$ (mean \pm SD of 19 questions) of the class selected the correct answer using KEEpad. Immediately post lecture this increased to $66 \pm 20\%$. One week post lecture $77 \pm 22\%$ and 4 weeks post lecture $79 \pm 14\%$. Evaluation forms showed student satisfaction regarding use of KEEpad was 99%, 99% and 98% for the above statements.

Conclusions: We have found that knowledge retention is better than by conventional methods using KEEpad, and students love it! The low cost and flexibility of this approach makes it ideal in a number of teaching settings.

Take home message: KEEpad increases knowledge following lectures